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FOREIGN CORRESPONDENCE.—LETTER FROM DR. HARLAN.

*To the Editor of the Boston Medical and Surgical Journal.*

DEAR SIR,—During my last visit to Boston, when on the eve of my departure for Europe, I think you exacted a promise from me to contribute to the pages of your valuable Journal. My absence from this metropolis, and other unavoidable circumstances, have prevented me, until the present moment, from fulfilling my pledge; and I only regret that my unexpected determination of returning immediately to America, prevents the accomplishment of my intentions to their full extent.

*Paris, Feb. 26th, 1840.*

Yours, respectfully,

R. HARLAN.

I attended, this morning, an interesting consultation at the hospital La Charité, in the Salle St. Joseph, under the direction of M. Cruvelhier. The case was that of an Englishwoman, who, with her husband, had for some years resided in Paris, and chiefly, under the plea of some disease or other, at the expense of an English benevolent society. She finally, some months since, came under the care of Dr. Macgloughlin, one of the visiting physicians of the Society—the patient, at this time, displaying most of the symptoms of paraplegia of the inferior, and hemiplegia of the superior portions of the body. From the previous history of the case, and certain irregularities in the diagnostics, Dr. M. considered the patient as an impostor, assuming disease with the view of imposing on the charity of her compatriots. The benevolent society, in consequence of this report of its official agent, suppressed all further contributions. In this stage of the proceedings, M. Cruvelhier was requested to take charge of the patient. He not only entirely disagreed in opinion with Dr. M., but gave the husband of the patient a written testimony that the case was really one of total paralysis of the lower portions of the body, and of the right arm and right side of the face. With this high authority on his side, the husband (Mr. Harding) appealed to the public, and Dr. M. was posted as a cruel ignoramus, who had voluntarily robbed a poor decrepid female of her last means of support. The doctor, in self-defence, commenced legal proceedings against the calumniator, and gained his suit—his opponent being fined and imprisoned. M. Cruvelhier now took the patient to his ward in the hospital, and called, in consultation, all the medical faculty of the institution, who, one and all, on minute examination, entertained the same opinion as M. Cruvel-

hier, that the patient really labored under a general and incurable paralysis.

These opinions being made public by the numerous students attending the practice of the ward, occasioned considerable excitement and discussion among the profession—when finally, to settle the matter, the medical faculty of the hospital offered to Dr. M. a public examination of the patient, before his medical friends, the students and profession in general. Accordingly, this morning, at 9 o'clock, the appointed hour, the ward of M. Cruvelhier was crowded to overflowing. M. Velpeau, making his appearance last, found it almost impossible to force his way into the circle which was attempted to be formed around the patient's bed, which had been removed to the middle of the room. M. Cruvelhier, observing his efforts, interrupted the discussion by crying out, "Voici Mons. Velpeau." Mr. V. immediately replied, "I fear that I shall be Mons. Sanspeau before I attain the circle." The French, by the way, are great punsters.

The discussion was opened by Mons. Cruvelhier, who gave a lucid and candid history of the whole case, and repeated his opinion, in the most decided manner, of the truth of the diagnosis that he and his confrères had already announced. The patient, whose appearance indicated that the approach of dissolution was not many days distant, was subjected to every kind of examination and experiment, in order to test the validity of her symptoms—Mons. Cruvelhier repeating, continually, "Show me the power of motion—prove to me the existence of sensibility." To me it appeared evident, that a partial or slight examination of the patient, in the present state of the case, was sufficient to diagnose the existence of paralysis, though probably not to the extent affected by the miserable patient—who, no doubt, simulated symptoms even now, in a dying state—the "malade imaginaire," the simulator of disease, had become the real victim.

After two hours of torture to the patient, M. Cruvelhier remarked to Dr. M.—"You are obliged to confess that you are unable to detect either the power of motion or the existence of sensibility in the muscles affected—and it now becomes your duty, as a man of honor, a gentleman, and a respectable practitioner, as you are, to confess your error, and give the parties a certificate accordingly." When Dr. M. declined to do this, hisses proceeded from the medical class. Dr. M. becoming irritated, declared, striking his fist against his hand, "I'll challenge the whole of you," and the class immediately separated amidst loud peals of laughter.

The most convincing proof of the existence of paraplegia, consisted in the introduction of the catheter, the bladder being full; a small quantity of urine began to flow, but immediately ceased—and was only voided by pressure on the abdomen. Dr. M. doubts the fairness of the manner in which this experiment was made.

I have had frequent occasion to remark the neglect of the Parisian practitioners in the constitutional treatment of local affections. A very remarkable instance occurred this morning in a case under M. Cruvelhier's care. The patient had just entered the ward with an inflamma-

tion of the arm. He called the particular attention of the class to the case as a strongly-marked instance of inflammation of the lymphatics. Observing some leech-bites on the arm, he asked the patient if the red, swollen, and indurated lines followed the application of the leeches; she told him that, on the contrary, the leeches were applied as a remedy for that affection. Mons. C. asked not another question—neither feeling the pulse nor examining the tongue, &c. He prescribed “twelve leeches and a poultice.” When he retired, I took the liberty of questioning the patient. The tongue displayed signs of irritation and fever—the skin was cool, and the pulse feeble. In reply to my inquiries as to the state of the bowels, she stated that she did not go to stool for eight or ten days, without the aid of lavements—that she was burnt up with a fever all night—had no appetite, &c. And yet M. Cruvelhier is one of the most eminent practitioners and distinguished authors among the Parisian surgeons.

I presume that you have read, in the Parisian medical journals, the history of an extraordinary tumor, recently removed, by M. Velpeau, from the right testicle of a patient in the hospital La Charité, 27 years of age. Not the least remarkable feature in the history of this case, was the successful diagnosis of Mons. V., who assured the class that the tumor would be found to consist of a fœtus. When the patient was introduced into the theatre, Mons. V. remarked that he was about to perform an operation entirely new in the annals of surgery—being nothing more nor less than the *Cæsarean section* performed on a man. The tumor was extirpated without any apparent injury of the testicle to which it was attached. On dissection, the tumor was found to consist of the remnants of a fœtus which had lived and grown from the period of birth, on the testis of its twin brother—the connection being vascular only—the patient being always insensible to any mechanical irritation applied to the tumor. The case terminated fatally in 8 or 10 days after the operation, although the patient previously appeared in vigorous health.

The profession has for some time been familiar with the process of embalming by Dr. Gannal, of Paris—which consists briefly in the injection, into the carotid artery, of a solution of acetate of alumine (two ounces of the salt dissolved in a quart of water, adding a little arsenic, and occasionally some red coloring matter). No other section, than that necessary to attain the artery, is requisite. I was recently invited by Dr. Gannal to examine his museum—consisting of numerous dry and wet preparations, of morbid and normal anatomy, and of various embalmed bodies, including several human subjects of different ages, from birth to 5 or 6 years—also dogs, cats, monkeys and numerous birds. As a means of embalming, even large bodies, and of preserving flesh when immersed in the fluid, Dr. Gannal’s method appears to have been employed with great success; but as a substitute for the usual method of impaling and preserving zoological subjects, it is not to be recommended—the act of desiccation distorting and diminishing the size of the objects. The artist professes to reserve to himself certain secrets in the process of embalming the human body—which he has patented. He has re-

cently published a respectable octavo volume, on the subject of embalming from the earliest periods down to the present day, including many valuable and interesting details of the various methods of injecting and preserving anatomical preparations. The late archbishop of Paris, Quelin, who died a few weeks since, was, by his own request, embalmed by Dr. Gannal.

Much has been said, of late, in the meetings of the Academy of Sciences, of M. Dumas's theory of *chemical substitution*, which, after all, appears to me to bear a strong affinity to the long-admitted and admired doctrine of *Equivalents*. The discussions were, however, of a high order, and well worthy the attention of the chemist.

An animated discussion has also been carried on here, between MM. Breschet and Magendie, on the *glanders*; the former maintaining that the disease is contagious, not only among horses, but extending to other animals, and including mankind—and that the disease is equally communicable, either by inoculation or contagion, in its chronic stage. Dr. Magendie denies both these positions, and considers the chronic glanders a different disease from the acute form.

Numerous and interesting courses of lectures continue to be delivered in every department of natural, medical and physical science, in the various public institutions of this metropolis. Most of these lectures vary in their subjects every year, so that a complete course would require the attendance of several years.

Magendie employs himself, the present terme, on the blood. I was struck with a remark he made in one of his recent lectures, viz., that in a large and vigorous dog which he had subjected to repeated bleedings, the crassamentum of the blood *increased* at every successive bleeding.

Becoming somewhat wearied of the practical routine of the Parisian hospitals, and having followed, nearly to their close, the lectures at the Jardin des Plantes, on anatomy, comparative physiology, comparative anatomy, and zoology, I took advantage of the kind invitation of my friend Prince Maximilian, of Nieuwied, on the Rhine, to make him a visit at his magnificent chateau. I determined to traverse the Rhine from near its source, and accordingly left Paris for Strasburg, via Metz. Strasburg has been long famed as an important and beautiful city, for its eminent professors and distinguished men. I here had the good fortune to meet my friend Professor Duvernoi, formerly connected with the University here, and now a professor in the College of France. From him I have ever received the most liberal proofs of hospitality. But it is not my object to fill the pages of your Journal with descriptions of magnificent cities, or to discourse of the often-told beauties and scenery of this enchanting country. There are some subjects, however, which attracted my attention *en route*, and which may not be uninteresting to your professional readers. I passed most of the time in the anatomical museum and extensive cabinet of natural history, connected with the University of this city, in company with its distinguished professors—always inducted by my friend Duvernoi. Both of these institutions are among the most creditable of their kind, and in the best possible state of preservation. The crowded state of the public library and

Athenæum was very creditable to the intellect of this community. The Cathedral of Strasburg is a bijoux of Gothic structure; its tower is the most lofty specimen of human production, and although the building was commenced six centuries ago, its state of preservation is yet perfect. Its immense height renders it peculiarly liable to injury from lightning, and it has, in fact, suffered several times formerly from such accidents. The municipal authorities, under the impression that a lightning-rod was only calculated to attract the electric fluid, would not permit the use of this preventive, until taught by experience, they were obliged to resort to this expedient, several years since, and have found it perfectly successful. From the Cathedral, we passed to the Church of St. Thomas to view the admirable monument erected by order of Louis XV. to the memory of Maréchal de Saxe, the hero of many battles, but pre-eminent for his victory over the combined armies of Austria, Holland and England. Of all the monuments of England, France, or Italy, which have fallen under my observation, there are none surpassing in beauty of execution or design, this splendid contribution of a grateful monarch to a brave and talented subject.

In an adjoining cabinet of the same church, my attention was arrested by two interesting objects, of a different kind, discovered three or four years ago, in a cave of this church, viz., the embalmed bodies of the Count de Naussau (Sarsburck) and his daughter. These relics, six hundred years old, are both habited in the costume of that epoch; the coat, small-clothes, &c., of the father, have been replaced by exact imitations—but the habits of the daughter are actually those in which she was buried, consisting of a blue silk gown richly ornamented with lace, with diamond rings on her fingers, and jewels on her breast. The body is well preserved, with the exception of the face. Bunches of silvered flowers still adorn the top of the head, arms and shoulders. The features of the Count are almost perfect. It is to be regretted that no account of the process of embalming has been preserved.

Strasburg is situated about three miles from the Rhine, where we joined the steamboat on its descent of the river. We stopped the first night at Mannheim; the next day at Coblenz, where the peculiar beauties of the scenery of this majestic river commence. We need not leave the rivers and the lakes of our own noble country in search of the beautiful and sublime, but here these natural attributes are combined in a manner to be seen nowhere else. Two hours' run by the steamboat placed me in Nieuwied, the residence of Prince Maximilian, whose munificent hospitality I enjoyed for several days. The prince is well known to the scientific world by his travels in South America. He is at present occupied in publishing his travels in North America, which will be a splendid production. It will appear simultaneously in German, French and English. The palace and park in town are extensive and beautiful specimens of their kind. One large building is devoted entirely to his museum, principally consisting of objects obtained in his travels, and of the Roman antiquities gathered on his estate. During the summer the family occupy a hunting lodge, situated five miles from the river among the mountains. There is here a park twenty miles in circum-

ference, fenced in, abounding in deer. I had the pleasure of attending my friend in a hunt. The surrounding scenery is picturesque, wild and varied. On taking my departure from this happy mansion of refinement and hospitality, I was furnished by the prince with introductory letters to the professors of the Universities of Bonn and Leyden—to Prof. Goldfuss of the former, and to Professors Temminck, Schlegel, &c., of Leyden.

[To be concluded next week.]

## THE STRUCTURE, FUNCTIONS AND PATHOLOGY OF THE SPLEEN.

BY WILLIAM INGALLS, M.D., BOSTON.

[Continued from page 154.]

WE shall here introduce an extract from the lectures of Dr. Grant "On the Secreting Organs of Animals."

"Every lining membrane in contact with a fluid, whether on the surface or in the interior of the body, exhales its own peculiar fluid, and in the lowest tribes of animals all the requisite secretions are furnished, often without the presence of a sanguiferous system. The materials thus transuded through the porous texture of membranes, or the parietes of capillary vessels, are sometimes destined to form a part of the system, sometimes to assist in the assimilation of foreign matter, and sometimes to form excretions to be discharged from the body. These secretions are not mere transudations of materials, unchanged in composition, from the fluids which afforded them; they are generally altered both in their chemical and physical properties by this transmission. \* \* \*

The duct of a gland is the gland itself, and it may be a simple undivided follicle, or it may be ramified to infinity, and compose a large conglomerate mass; but this membranous duct, with its vessels and nerves, appears to be alone essential to the secretions."—*Lancet*.

There undoubtedly resides in the blood materials essential to the formation of bile. Changes also occur in the quality of the blood at different periods, until we arrive at maturity. In the early stages of infancy, the blood flowing through the vena portæ is particularly adapted to the very excitable state of the liver; the bile is bland; the sweet taste being predominant, the consistence watery, and the color less intensely yellow, afford an evidence of the mild character of the portal blood—the source whence its properties are derived. But in the course of time, the excitability of the biliary organ is less, and the structure more complete. In manhood, picromel, which is the essential property of the bile, is in such proportion as to afford a salutary stimulus to the liver.

An injected preparation of an infant, of ten months, was presented to me by Dr. Ramsay, in which the vena portæ, instead of going to the liver, entered the vena cava near the abdominal surface of the diaphragm: the subject was extremely emaciated. A similar distribution of the vena portæ in a subject arrived at maturity has not been recorded.

It has been conjectured the secretion of the bile may be performed by the hepatic artery, and the vena portæ being sometimes found to open

into the vena cava, instead of going to the liver, is cited as an example confirmatory of this opinion. That the artery, besides being destined to nourish the liver, may in some measure be subservient to the process of the biliary secretion, is quite possible; but that it is the principal agent in the secretion of the bile, is warranted neither by experiment nor by anatomy. The true source whence pure bile is produced is the portal blood; though this be cut off, bile may be secreted, but of a nature so bland that its influence in promoting digestion is inconsiderable.

The functions of all the organs are proportioned to the requirements of the animal economy—at the different ages. The spleen is not sufficiently developed to secrete its appropriate fluid—from which the stimulating property of the bile is derived—until several months after birth; in the interim, however, the bile, though bland, is very well adapted to assist digestion. When the function of the spleen is established, the system has arrived at the state in which digestion requires bile of a more stimulating quality. If from any cause the flow of blood from the hepatic vein to the liver be obstructed, or diverted from its course, the digestive powers for the want of its proper stimulus become enfeebled; health declines; extreme emaciation ensues; and death terminates existence.

Notwithstanding the trunk of the portal vein does not reach the liver, the branches which are naturally distributed to this viscus must exist; otherwise there would be no secretion of the bile, as upon the agency of these branches the production of the biliary fluid is dependent. The liver is composed of small glands, called *penicilli*, formed by convolutions of the extreme branches of the vena portæ. When these have performed their office, the superfluous blood enters the radicles of the venæ cavæ hepaticæ, to be commingled with the circulatory mass. Admitting, then, the extremities of the vena portæ inosculate with the radicles of the hepatic veins—on the principle that fluids tend to penetrate into parts that give the least obstruction—the venous blood of the hepatic veins finding the least resistance towards the capillaries, enters them, and coming in contact with the membranous surfaces\* of the *penicilli*—on which the biliary secretion is dependent—bile is secreted. But, as we have said above, bile that is destitute of *picromel* in consequence of the function of the spleen being not yet established, is mild and thus may answer in the first stages of infancy, but in later stages it is inadequate to give a wholesome stimulus to the organs of digestion, or to produce the chemical change in the chyme, by which the chyle is separated from the feces—one of the processes of assimilation essential to nutrition and the continuance of life.

A distinction is made by Mr. Hunter between the trunk of large branches and their ultimate ramifications; the former are endowed with elasticity, and the latter with muscular power. Though the impetus of the blood by the elasticity of the arteries be felt throughout the vascular system, the circulation in the *minimæ vasculæ* is carried on mainly by muscular power. In proportion to the tortuous course of an artery,

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\* See Grant's Lectures.



its combined force of elasticity and muscular power are greater than a straight one.

The splenic artery is tortuous and muscular; and in proportion to its tortuosity and muscularity is its capacity for action. In a recent post-mortem examination, in a subject aged 73, the splenic artery was ossified, affording an excellent opportunity of seeing its flexures; it was arched and stood off at some distance from the superior margin of the pancreas, along which it proceeded in an undulating course, until it arrived near the spleen, when it described a small, but complete circle. The splenic vein is much larger than the artery; its coats are very thin and capable of great dilatation, and the blood contained in it is deprived of its coagulable property.

The action of the arteries and their larger branches, and even the propelling power of the heart, are subordinate to the capillary system; and this seems to be in conformity to the order of nature, as in the growth of an animal of the class of mammalia the capillary arteries are first formed, next the branches, then the trunks, and finally the heart.\* The capillary system maintains its priority and ascendancy in the actions of the circulatory apparatus and in the various secretory organs in the adult; as is evident from the act of blushing from modesty, or shame, and the changes of the countenance from fear, or terror, or anger, preceding the palpitation of the heart and the trembling of the muscular fibre; and from the effect of topical applications on the parts beneath before an alteration in the action of the branches, and trunks of arteries and the central organ of circulation is produced, or an impression on the nervous system is made.

The excitability of the muscular fibre exists independently of the nerves? In paralysis, when the function of the motive and sensitive nerves is interrupted, and the muscles are no longer supplied with nervous influence, the circulation continues, nutrition proceeds, and involuntary spasmodic contractions occasionally take place. If the pneumogastric nerves, says Magendie, be divided "below the origin of the branches that go to the lungs, food is transformed into chyme, and an abundance of chyle is produced." Hence the functions of the secretory organs are chiefly under the control of the apparatus of circulation. In health, the capillary vessels—being the first to feel impressions—in the absence, or presence, of stimuli may remain comparatively quiescent, or brought into action, without the interposition of nerves.

The distensible and contractile power of the stomach is very great. We are informed, when the stomach is empty, it becomes enlarged, and when full it is much contracted; or, as some physiologists suppose, the reverse is the case. These conditions, however, do not contribute much to the explanation of the function of this viscus. When the stomach is empty, the activity of its capillary vessels is greatly diminished, and there is a corresponding inactivity in the splenic artery, and indeed in the branches of the celiac, and the mesenterica superior and inferior. When food is taken into the stomach, the capillary vessels of the vasa brevia first feel its stimulating property, which is soon propagated through the



vasa brevia to the splenic artery, thence to the arteries arising from the anterior part of the aorta, and contained within the cavity of the peritoneum; whence also the flow of blood through the portal veins is accelerated. When the appetite is satiated and hunger appeased, a healthy excitement is imparted to the liver, and the whole system is invigorated. In addition to the acceleration of the blood through the splenic vein and the ventral branch of the vena portæ, the bitter principle affords a stimulus to the biliary organ, promoting the secretion of bile, and rendering the circulation through its mass more active; whence an increased quantity of blood is discharged through the venæ cavæ hepaticæ into the vena cava, and thence into the right auricle. By this process the activity of the heart is augmented, the blood is propelled through the arterial system with greater velocity, and the animal temperature more elevated. Though the excitement thus produced may not be inconsistent with perfect health, it has obtained the name of *crapulary fever*.

**PATHOLOGY.**—The following syllabus is taken from *Marshall Hall's Lectures on the Theory and Practice of Medicine*.

"The diseases of the spleen are exceedingly obscure: they may be viewed as only forming a part of a previous disease, as 1. Typhus; 2. Intermittent; 3. Purpura, &c.; or as constituting a primary disease, as, I. INFLAMMATION, including 1. *Changes in volume,\* consistency, color*; 2. *Suppuration*; (1.) *Diffused*; (2.) *Abscess*. II. ORGANIC DISEASE. 1. *Tubercles*; 2. *Encephalosis*; 3. *Cysts*; 4. *Hydatids, &c.*" —(*Lancet*.) To which may be added injuries from external violence; sometimes complicated with rupture of the peritoneum.†

\* Cases of enlargement of the spleen—vulgarly called "ague cake"—have come under my care, as sequela of the intermittent fever. Treatment: for an adult, purgatives of a warm infusion of senna, in the proportion of half an ounce of the leaves of senna to a pint of water; one half to be taken at first, if it does not operate in three hours take the remainder; this dose to be taken every third day; friction night and morning with saponaceous liniment rendered pungent by the addition of cayenne oil; light, nutritious diet; abstinence from stimulating drinks and condiments; warm clothing; and avoidance of atmospheric vicissitudes.

Three children, of colored parents, successively died, when they had arrived at between two and three years of age, of an enlargement of the spleen, readily distinguished by examination externally. The death of each was preceded by continued fever, loss of appetite and strength. Neither of the children nor their parents had been exposed to the action of marsh miasmata. The family lived in a room in the third story; in the entry adjoining were pails and tubs filled with the refuse of culinary vegetables macerating in stagnant water;—a fact, perhaps, that ought not to be omitted.

In May, 1839, I prescribed for a twin female child, between one and two years old, with an enlargement of the spleen: the abdomen was prominent, the apex extended a little below and beyond the umbilicus, pointing, however, towards the superior and anterior spinous process of the ileum; emaciation and restlessness very great. The remedies employed in the treatment of the ague cake, with the addition of lime water, were recommended. March 23, 1840, the enlargement of the spleen had subsided; the child was fat and lively; could stand by holding by the back of a chair. It had some marks of rickets. The lime water was advised to be continued.

† In the course of my practice I have made the post-mortem examination of three cases of the fracture of the spleen; two of them from blows in the pit of the stomach. The other was occasioned by a fall from the wall of the Treatment House (while it was building) upon a pile of stones. The height from which the man fell was, by admeasurement, ascertained to be twenty-six feet. In all of these cases the posterior cavity of the peritoneum [*Parrière cavité péritonéale*:—*BICHAT*] was filled with fluid blood. The two former I examined at the request of the attending physicians. The third case fell under my immediate care, the history of which, entitled "A Case of Fracture of the Spleen and Rupture of the Intestines, occasioned by external violence. By Wm. Ingalls, M.D." was inserted in the Boston Medical and Surgical Journal of June 24, 1828, from which I have made the following extract.

"There was a tumor in the region of the stomach of a character different from the general inflation of the abdomen, which cannot be explained without admitting that the blood was retained in that situation by being lodged in the sac or cavity belonging to the epigastrium. Hence, in hemorrhages from injuries of the spleen or from ruptured vessels in its vicinity, we may expect to see a well-defined tumor in the epigastric region, affording to the touch a soft yielding, rather than a strong sense of fluctuation. It is possible, however, in profuse hemorrhages, the blood may be discharged into the proper cavity of the peritoneum through the foramen, behind the capsule of Glisson, in which case, the character of the tumor and the source of the hemorrhage would be less easily ascertained."

It is more particularly my object, in this communication, to give my views of the pathological condition of the spleen in the intermittent fever; and what has been advanced on its structure and function will enable me to effect this object with greater brevity.

The intermittent is an endemic disease, originating from malaria; and persons very seldom experience an attack, unless, at some period of their lives, they have resided in a country where it is generated.

Malaria acts both as the remote and as the predisposing cause of the intermittent fever. The exciting cause is usually the effect of exposure to sudden changes from a high temperature to a cold moist state of the atmosphere, or to excessive fatigue. When from a combination of these causes the intermittent is developed, the debilitating influence of malaria renders the spleen—the seat of the intermittent fever—so torpid as temporarily to suspend its function. The ultimate ramifications of the splenic artery and the radicles of the splenic vein, which constitute the great mass of the spleen, are in a correspondingly languid state. The minimæ vasculæ of the artery and vein being paralyzed, the splenic vein would become empty and collapsed, were it not for the reflux of blood from the trunk of the vena portæ. In this case, the ventral branch of the vena portæ in supplying the deficiency of fluid in the trunk, occasioned by the reflux of blood into the splenic vein, becomes to a considerable extent exhausted, and thus the quantity conveyed to the liver is diminished.

Blood conveyed by the portal system to the liver, besides being less in quantity, is deprived of the properties which we have considered requisite to furnish the materials for the formation of the bile, and to impart to this viscus a salutary stimulus. From these causes the vascular system of the biliary organ is in a considerable degree rendered inactive; consequently, the current of blood flows in less quantity and with less velocity through the venæ cavæ hepaticæ, vena cava abdominalis, and the cavities of the heart. This viscus not feeling the usual stimulus arising from the impulse of the blood against its walls, contracts feebly, and the impetus of the blood derived from its propulsive power, with the additional aid of the elasticity of the trunks and larger divisions of the arteries, is not sufficient to overcome the resistance of the smaller but muscular branches. Thus, the balance between the elastic and muscular portions of the arteries is disturbed; the *vis a tergo* being comparatively weak, the capillary vessels acquire the preponderance, and contract so forcibly as to produce a regurgitation of their contents. Hence the paleness and shrinking of the cutaneous surface. These are without doubt unequivocal signs of the vacuity of the capillary vessels, and the want of plenitude in the larger arteries; but the capillaries of the surface are not exclusively affected, as the same phenomena may exist in the viscera contained in the cranial, thoracic and abdominal cavities, and indeed in every secretory organ. The stomach, the functions of which have been proved by M. Magendie to be performed without the intervention of nerves, may be selected as an example.

The stomach is furnished with vessels from three sources; from the splenic, hepatic and coronary arteries, each being given off from the

cœliac; on the left side, arise from the splenic the gastro-epiploica sinistra and vasa brevia, which go to be distributed to the cardiac extremity of this viscus; on the right, from the hepatic, arise also two branches, the gastro-epiploica and pylorica, which go to be distributed to the pyloric extremity; and superiorly, the coronary, which is its proper artery.

We have stated, that the first cause of the successive and extensive morbid changes in the several portions of the bloodvessels originated from a paralyzed state of the *minimæ vasculæ* of the spleen; in conformity to the law, that the activity of an artery and its branches belonging to a secretory organ is in exact proportion to that of its capillary vessels; that the splenic artery and its branches become proportionably torpid; that the liver did not receive by the *vena portæ* blood in the usual quantity; that the capillary extremities of the hepatic artery, together with those of the other classes of vessels, were rendered in a great measure inert; and that—on the principle above mentioned—the artery itself and its branches must be in a corresponding condition. It may be added, that from the same cause that produces torpor in the splenic artery and in the hepatic, the cœliac is similarly affected, and that consequently the circulation in the coronary is comparatively languid. With regard to the numerous arteries that supply the stomach with blood, the *vis a tergo* is not sufficient to overcome the resistance afforded by the contractile force of its capillary vessels. Thus, the functions of the stomach are impaired and remain so through the paroxysm of the intermittent fever; and, in like manner, the feeble contractions of the heart and the resistance of the capillary vessels satisfactorily explain the morbid phenomena peculiar to the functions of the viscera contained in the cavities of the thorax and cranium.

During the inactivity of the vascular system the blood slowly accumulates round the heart, until the sensation of cold, "frequent succussions or rigors," anorexia, embarrassed respiration and disturbance of the functions of the brain, announce the existence of the cold stage of the fever; stretching, yawning, indisposition to motion and mental exertion, are the precursory symptoms which give warning of its approach.

Efforts of the heart to release itself from the accumulating load are made; and the organs of respiration are thrown into great commotion; the carbon not being exhaled nor the oxygen absorbed in due proportions, the impracticable effort to make a full inspiration brings into strong action the respiratory muscles, manifested by "frequent succussions or rigors," the severity of which are in proportion to the vacuity and collapse of the *minimæ vasculæ* of the lungs. By the increasing action of these organs the cold stage is at length overpowered and the hot stage is established.

The hot stage is not immediately succeeded by the sweating stage; if it were, a solution of the malady would be the result, the contractions of the heart would propel the blood in a uniform current throughout the whole arterial system, whence perspiration would ensue and continue to flow until the circulation was restored to its healthy condition. But the reverse is the case, by the empty and collapsed state of the *minimæ vasculæ*

the cutaneous and pulmonary transpiration and the secretions generally are obstructed. In addition to what has already been advanced, during the first part of the cold stage, while the heart and capillaries remain in almost a quiescent state, an accumulation of excitability takes place, the obvious effect of which is the rendering the pulsations of the former more vigorous and the resistance of the latter more obstinate. Between these antagonising powers a contest ensues, in which the heart most usually prevails, the capillaries capitulate, a free evacuation follows, and health is restored.

[To be concluded next week.]

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## BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON, APRIL 22, 1840.

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### RHINOPLASTY.

LAST week we saw a man at a lodging house in Milk street, in this city, who was in the process of having a portion of a nose transferred from the left fore-arm to his face. A part of the tip and the right wing had been removed, and the object of the operation was to repair the maimed organ by this novel resource of art. Instead of taking the piece designed for a patch, from the forehead, as commonly practised by Taliacotianists, it was thought far better, in this particular instance, to resort to the arm, and thus save the face from a disagreeable scar, the usual deformity when the integuments are taken from the region of the forehead. From all that could be discovered, there was a fair prospect of success, and by this time, it is presumed, the patient has returned home to the State of Maine. Dr. J. M. Warren, the surgeon who has heretofore been very successful in rhinoplastic surgery, was the operator. In due time it is expected that a complete history of the case will be drawn up, and given to the profession through the pages of this Journal.

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*President of the Medical Society.*—It is understood that Dr. Shattuck, who has presided the last three years over the Massachusetts Medical Society, will not be a candidate for the office the ensuing May. Several persons are named, as probable candidates for the chair, principally residing in the western part of the State; but as the choice devolves upon the Counsellors, the day after the annual meeting, it is difficult to predict who will obtain the suffrages of that board. Whoever the choice falls upon, may be sure of finding himself associated with a circle of gentlemen, alike distinguished for their urbanity and devotion to the respectability and usefulness of the Society.

Some have expressed a desire to have the legislative report on the petition of the late Dr. Bartlett, placed in the hands of the members. Whether it will be printed for distribution, or not, is more than we can say. From a recollection of the general character of the report which was given at the close of the session of 1839, we think there cannot be much in this that was not embraced in that document.

*Dr. Spencer's Address.*—At the close of the medical lectures in Geneva College, the professor of the Institutes and Practice of Medicine, Dr. Spencer, delivered a public address to the graduates, which reads so well that it must have been received with respectful attention by the audience. There is evidently a growing medical literature in the United States. It is not more than two or three years since the custom was introduced of addressing classes in this manner. The effect is already felt to be highly beneficial. Whilst such addresses impress the young practitioner, at the very moment when his mind is in its most plastic condition, with the responsibilities, the duties and the importance of the character he is about to assume, some of the finest specimens of writing have in this way been produced, at once showing the resources of minds devoted to the pursuits of science, and the power with which they can be exercised over the feelings and sentiments of others. Dr. Spencer has really laid the graduates of Geneva College under obligations to him, and the institution may well be proud of such a professor.

*The York Lunatic Asylum.*—The average number of patients during last year was 368; the number admitted 159; discharged 94; died 60. The Asylum was opened in 1819; since which time 2,739 have been admitted; 1,500 discharged; 868 have died; and 371 remain. Of the 1,500 discharged, 1,203 were cured; 297 relieved. Next to Hanwell, this is the largest County Asylum in the kingdom. The charge of six shillings weekly for each patient has been ordered to be continued for 1840, by the Visiting Justices. The expenses of the year amounted to £7,044 16s.

The Tables, down to 1838, contain several curious or interesting facts. 581 suicide cases had been admitted; in 111 cases suicide was attempted by hanging; in 62 by drowning; 89 by cutting the throat; 7 by poison; 15 by jumping out of window; 13 by hanging and drowning; 7 by hanging and cutting the throat; 224 in modes not ascertained. 343 females and 238 males have attempted suicide; the females apparently prefer hanging and drowning.

It appears from one of the tables, at least we so understand it, that 514 cases of hereditary disposition were admitted; that the relatives were not described in 125 instances; that in 57 the father of the patient was insane; in 76 the mother; in 53 the brother; in 59 the sister; in 45 the aunt; in 29 the uncle; in 19 the cousin; in 10 the brother and sister; in 8 the grandmother; in 4 the grandfather; in 3 the son and daughter; in 3 the daughter; in 6 the father and mother; in 3 the mother and sister; in 2 the mother and grandmother; in 4 the father and sister; in 2 the mother and brother; in 2 the husband; in 1 the wife; in 3 the nephew.

The exciting causes of insanity were stated in 683 male patients; viz., intemperance in 303 cases; domestic afflictions 71; religion 45; injuries in the head 32; disappointed love 22; fever (consequence of) 20; pecuniary disappointment 34; poverty and distress 25; study 21. In females, intemperance was a less common cause; out of 512 cases, intemperance was assigned in 39 cases; religious anxiety in 63; domestic affliction 52; disappointed love 40; unkindness of husband 40; jealousy 24; fear (fright ?) 30; puerperal, 34.—*London Lancet.*

*Treatment of External Cancer by Ligature of the Vessels and Division of the Nerves supplying the diseased part.*—Feeling persuaded that the increased afflux of blood and heightened nervous sensibility, which are the consequences of disease, exert a great local influence in cancerous affections, M. Jobert has adopted a new plan of treatment; viz., that of tying the principal arterial branches and dividing the nervous filaments which are distributed to the affected part. He has seen this proceeding followed by a favorable change in the aspect of the ulcers, and by their ultimate cure. He has obtained this successful result in four cases of cancer of the lip, and in one of the tongue.

M. Jobert is of opinion that the vascular system has a much more important share in the development of cancerous affections than the nerves of the part; therefore he considers that tying the arteries will have much more influence in checking the progress of the disease than the division of the nervous filaments.—*Revue Medicale*.

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*Chloride of Sodium in Scrofula.*—M. A. Latour speaks highly of the utility of this remedy in scrofula or pulmonary consumption. The following case is illustrative of its effects:

A little girl, 13 years of age, of lymphatic temperament, suffered for more than a year, under scrofulous symptoms; the sub-maxillary ganglia were greatly enlarged, and the upper lip was the seat of an extensive scrofulous ulceration, for which a variety of remedies had been tried during eleven months, without benefit.

On the 9th of April a drachm of sea-salt was given in soup, and ordered to be continued daily. The sore was washed with salt water, and the diet was confined entirely to animal food. The re-action produced by the salt was so great that the dose was diminished by one half, and then continued at that rate. The child took frequent exercise in the open air. Towards the middle of May the ulcer was healed, and in fifty days a complete cure was obtained. M. Latour recommends that the salt should be given in flour, made up in the form of a little French roll.

Thus a drachm of salt, dissolved in a small quantity of water, may be mixed with four ounces of flour. Children will readily eat one or two of these rolls in a day.—*L'Expérience*.

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*Poisoning with Arsenic—Successful Antidote.*—The following may be added to the cases we have already published, and which demonstrate the efficacy of the hydrated peroxide of iron in poisoning with arsenic:

On the 4th of October last, MM. S—, father and son, were seized with violent vomiting immediately after supper. It was discovered that some substance was contained in the wine-bottle from which they had drank. The bottle was at once carried to a medical man, who tested the contents with a blow-pipe, and discovered arsenic. Three hours after the presumed poisoning the iron was administered, and after the third or fourth dose the vomiting had ceased; the remedy was, however, continued for the sake of precaution, and towards 7 o'clock, A. M., the patients fell asleep. On the following day they were perfectly recovered. Some members of the family and servants, who had tasted a small quantity of the wine through curiosity, were seized with vomiting. A considerable quantity of the poison was found in the bottom of the bottle, and that taken by the two men must have been more than sufficient to occasion death.—*Journal de Chimie*.

**Medical Miscellany.**—A committee of the Legislature of New York have made a report adverse to the petition of the Thomsonians.—The French Academy had at their disposal 3000 francs to present the person, magnetized or not, who could read through an opaque body, interposed between the eyes and the letters, with eyes open or closed—but notwithstanding the hue and cry about *clairvoyance*, not a single individual who pretended to read in that manner, has been able to do so before the committee.—Robert McBeath, who undertook to perform a surgical operation on one David Hunter, at St. John, N. B., killed the patient. A coroner's jury have rendered a verdict of manslaughter against him.—It is very sickly again at Port au Prince. The disease now fatally prevalent is said to be yellow fever, or something very like it.—The next meeting of the British Scientific Association will be held on the 17th of September next, in the city of Glasgow.—Drs. Bright, Solon and Rayer, have each received a gold medal from the Royal Academy of Medicine, Paris, for their labors on diseases of the kidney. M. Ricord also received one of the same value, 1,500 francs, for his work on the venereal disease. M. Martin had 1000 francs awarded him for improvements in the mechanism of artificial legs.—Very complimentary resolutions were passed by a large class of medical students in Philadelphia, in favor of Dr. Gerhard, who has recently completed an able course of lectures.—The deaths in London, since the third week in January, have been, from Jan. 26 to Feb. 1, 833; Feb. 2 to 8, 818; Feb. 9 to 15, 813; Feb. 16 to 22, 855.—Dr. G. B. Wood, of Philadelphia, is to prepare a memoir of the late Dr. Joseph Parrish, which is to be read publicly before the Medical Society, when completed.—A new paper, devoted to the promulgation of dietetic nonsense, called the *Health Journal and Advocate of Physiological Reform*, is published at Worcester and Boston, alternately. Can physiological laws be changed, modified or abrogated?—A lad recently died in Pennsylvania, of hydrophobia, having been bit by a mad cat several weeks previously.—The late Dr. Parrish gave directions that his body should, after death, be submitted to close examination, which was done, and the result is published in the last *Medical Examiner*. Dr. P. was in the habit of referring to his own case as a proof that a tendency to phthisis might be counteracted by abundant exercise in the open air. In the post-mortem examination, appearances of cicatrization were discovered in the left lung.—The April No. of Dr. Bell's *Select Medical Library* contains the last of Hunter on the Blood, Ricord's treatise on the venereal disease, and the commencement of Macartney on inflammation.—The April No. of the *New York Journal of Medicine and Surgery* (now published by C. S. Francis, 252 Broadway) is an excellent one, both in appearance and matter.

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**TO CORRESPONDENTS.**—The reports of Dr. North, from Saratoga, a review of a discourse by a distinguished physician of New York, and the continuation of Dr. Woodward's reminiscences, will be attended to in due time.

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**MARRIED.**—At Baltimore, Dr. George C. Shattuck, Jr., of Boston, to Miss Ann Henrietta Brune.—At Southbury, Ct., Wm. C. Catlin, M.D., of Bethlem, to Miss Mary Elizabeth Wheeler.—At Winsted, Ct., Dr. Luman Wakefield, to Miss Ann Tyler.

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**DIED.**—At Litchfield, Ct., Dr. Daniel Sheldon, 90.—At Berkshire, N. Y., Dr. Joseph Waldo, 81.—At Danbury, Ct., Dr. Jabez Starr, 84.—At Philadelphia, Dr. J. J. Allison.



Number of deaths in Boston for the week ending April 18, 26.—Males, 12—females, 14. Stillborn, 2. Of consumption, 3—fits, 1—lung fever, 3—drowned, 1—scarlet fever, 3—disease of the heart, 1—old age, 1—smallpox, 2—marasmus, 1—gout, 1—pleurisy fever, 1—jaundice, 1—suicide, 1—infantile, 1—nervous fever, 1—dropsy, 1—hooping cough, 1—convulsions, 1.

SEVERAL THOUSAND COPIES OF DESLANDES' TREATISE ON THE DISEASES PRODUCED BY EXCESSES, have been sold the past year. Price 50 cents. For sale by OTIS, BROADERS & CO., No. 120 Washington street (up stairs).

*Extract from the Boston Medical and Surgical Journal.*—"If it were once freely circulated, the tendency would be beneficial, because, like an alarm gun, it would give warning in season to arrest a threatening danger."

*Extract of a letter from Dr. Woodward, Superintendent of the Insane Hospital at Worcester.*—"That it is a most frightful source of ill health and fatal disease with the young, I have no doubt; I hope, therefore, it will go into extensive circulation."

*Extract of a letter from Dr. J. W. Francis, New York.*—"The volume as now published will prove eminently useful, and deserves the consideration of all to whom is committed the responsible trust of moral and physical education."

*Extract of a letter from Dr. Doane, New York.*—"The subject is extremely important, and one too much overlooked by our profession generally, and the evils of the vice are not appreciated by our community."

*Extract of a letter from Dr. Winslow Lewis, Jr., Boston.*—"To none can the work do harm, and to many it may give rise to that deep self-trust which will forever free them from this fatal vice."

For sale in Lowell, by E. A. Rice & Co. In Nashua, by Buffum & Gill. In Salem, by H. Whipple. April 15—3t

### NEW MEDICAL WORK.

Published by Charles C. Little and James Brown, Booksellers, No. 113 Washington street, Boston.

PRINCIPLES OF THE THEORY AND PRACTICE OF MEDICINE, by Marshall Hall, M.D. First American edition, revised and much enlarged, by Jacob Bigelow, M.D., and O. W. Holmes, M.D. 724 pages, 8vo. This English work, by an author of great celebrity, has been revised and augmented with new matter adapting it to the present state of medical science, by the American editors. It appears from the advertisement, that one third of the entire volume is written by the editors. The following are some of the opinions of the American press in regard to this edition.

"We would unhesitatingly pronounce it the best and most complete text-book for the study and practice of medicine. It is full of facts, well arranged and digested, and free from the endless repetitions, and diffuse, ill-digested matter which are often introduced into treatises upon medicine. The present state of the science is reached in almost every instance."—*Philadelphia Medical Examiner.*

"A summary of the best medical knowledge of the present day, exhibiting, in general, able and correct views of the most important results of recent investigations in all the varieties of disease."

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"It strikes us, after a patient examination, that no practitioner who has once had this book in his possession would know how to dispense with it. The editors, or in fact authors, appear to have wholly prepared the first part, a most excellent and indispensable addition to the original text. Throughout the entire volume the additions they have made are readily recognized, and form an essential feature in the construction of the American edition. To students of medicine especially we recommend this edition as being superior to any other work extant for them."—*Boston Medical and Surgical Journal.* March 11—6m

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JOHN C. WARREN,  
JOHN B. S. JACKSON,  
ROBERT W. HOOPER,  
J. MASON WARREN.

Oct. 9—4f

### VACCINE VIRUS.

PHYSICIANS in any section of the United States can procure ten quills charged with PURE VACCINE VIRUS, by return mail, on addressing the Editor of the Boston Medical and Surgical Journal, enclosing one dollar, *post paid*, without which no letter will be taken from the post office. June 19

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Reference.—John C. Warren, M.D.; George C. Shattuck, M.D.; John Ware, M.D.; John Jeffries, M.D.; Edward Reynolds, M.D., Boston. W. J. Walker, M.D., Charlestown.

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